

(FILE 'HOME' ENTERED AT 14:56:25 ON 09 AUG 2002)

FILE 'CAPLUS, USPATFULL' ENTERED AT 14:56:49 ON 09 AUG 2002

L1 64 S HYDROLYZING LACTOSE  
L2 44 S L1 AND GLUCOSE  
L3 7 S L2 AND HYDROGENAT?  
L4 7743 S LACTOSE (P) GLUCOSE (P) GALACTOSE  
L5 990 S L4 AND HYDROGENAT?  
L6 669 S L5 AND HYDROLY?  
L7 25 S L6 AND HYDROGENOLY?  
L8 10 S L7 AND SORBITOL  
L9 0 S L8 AND DULCITOL  
L10 9 S POLYHYDRIC ALCOHOL (P) LACTOSE (P) HYDROLYSIS  
L11 95 S LACTOSE (P) GLUCOSE (P) GALACTOSE (P) SORBITOL (P)  
POLYHYDRIC  
L12 28 S L11 AND HYDROGENAT?  
L13 0 S L12 AND HYDROCRACKING  
L14 0 S L12 AND HYDROCRACK?  
L15 0 S L12 AND HYDROGENOLY?  
L16 27 S L12 AND GLYCOL  
L17 18 S L16 AND AQUEOUS  
L18 0 S L17 AND ACID HYDROLYSIS  
L19 0 S L17 AND CONVERSION  
L20 0 S L18 AND ?GALACTOSIDASE  
L21 1320 S POLYHYDRIC ALCOHOLS/TI  
L22 0 S L21 AND LACTOSE CONVERSION  
L23 20 S L21 AND LACTOSE  
L24 4 S L23 AND HYDROGENAT?

L12 ANSWER 1 OF 7 USPATFULL  
AN 2002:194560 USPATFULL  
TI Composition and method for lactose hydrolysis  
IN Eisenhardt, Peter F., Philadelphia, PA, United States  
Smith, Leonard P., Beesley's Point, NJ, United States  
PA McNeil-PPC, Inc., Skillman, NJ, United States (U.S. corporation)  
PI US 6428786 B1 20020806  
AI US 1995-421825 19950606 (8)  
RLI Division of Ser. No. US 1993-128625, filed on 28 Sep 1993, now  
abandoned  
DT Utility  
FS GRANTED  
EXNAM Primary Examiner: Witz, Jean C.  
CLMN Number of Claims: 23  
ECL Exemplary Claim: 1  
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)  
LN.CNT 414  
AB The present invention relates to a composition for the enzymatic  
hydrolysis of lactose containing two lactase enzymes having distinct pH  
optima. The composition is suitable for treating or controlling the  
symptoms of lactose intolerance in humans.

L12 ANSWER 2 OF 7 USPATFULL  
AN 2002:152202 USPATFULL  
TI Composition and method for lactose hydrolysis  
IN Eisenhardt, Peter F., Philadelphia, PA, United States  
Smith, Leonard P., Beesley's Point, NJ, United States  
PA McNeil-PPC, Inc., Skillman, NJ, United States (U.S. corporation)  
PI US 6410018 B1 20020625  
AI US 1995-543975 19951017 (8)  
RLI Continuation of Ser. No. US 1993-128625, filed on 28 Sep 1993, now  
abandoned  
DT Utility  
FS GRANTED  
EXNAM Primary Examiner: Witz, Jean C.  
CLMN Number of Claims: 20  
ECL Exemplary Claim: 1  
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)  
LN.CNT 406  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB The present invention relates to a composition for the enzymatic  
hydrolysis of lactose containing two lactase enzymes having distinct pH  
optima. The composition is suitable for treating or controlling the  
symptoms of lactose intolerance in humans.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 3 OF 7 USPATFULL  
AN 1999:22223 USPATFULL  
TI Decarboxylation process for 2-ketoaldonic acids  
IN Fleche, Guy, 15 Rue Gambetta, 59190 Hazebrouck, France  
Duflot, Pierrick, 773 Rue de la neuve voie, 62136 Lacouture, France  
PI US 5872247 19990216  
AI US 1997-864780 19970529 (8)  
PRAI FR 1996-6808 19960603  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Kight, John; Assistant Examiner: Lee, Howard C.

LREP Henderson & Sturm  
CLMN Number of Claims: 12  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 333

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Catalytic decarboxylation process for 2-ketoalonic acids by nickel ions  
put characterized in that an aqueous solution of a 2-ketoalonic acid is  
in contact with a resin carrying vinylpyridine groups.

The process allows in particular ribulose, xylulose and erythrulose to be easily obtained.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 4 OF 7 USPATFULL  
AN 89:49475 USPATFULL  
TI Low and non-fat frozen dairy desserts and method of preparation  
IN Greenberg, Norman A., New Hope, MN, United States  
Chandan, Ramesh C., New Brighton, MN, United States  
Deeslie, William D., Maple Grove, MN, United States  
Conolly, Daniel D., Berkeley, CA, United States  
PA General Mills, Inc., Minneapolis, MN, United States (U.S. corporation)  
PI US 4840813 19890620  
AI US 1987-88744 19870824 (7)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Hunter, Jeanette  
LREP O'Toole, John A.  
CLMN Number of Claims: 31  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 855  
AB Low and non-fat aerated frozen dairy desserts are provided having the organoleptic characteristics of premium, high fat ice cream but which includes 0.1% to 7.0% by weight of fat. The dessert compositions essentially comprise 20% to 25% milk solids non-fat, 1% to 7% whey protein concentrate, corn syrup solids, sucrose and water. The whey protein to casein weight ratio ranges from 1:0.5 to 4.0. The percent whey protein denaturation ranges from 50% to 100%. The total protein content is at least about 7%. The lactose concentration is less than about 4%. Liquid dessert pre-mixes for the present desserts are also provided. Preferred embodiments of the desserts are free of added stabilizers and/or emulsifiers yet nonetheless provide the present organoleptic attributes. Methods for the preparation of the new aerated frozen dairy desserts and pre-mixes are also provided.

L12 ANSWER 5 OF 7 USPATFULL  
AN 84:60921 USPATFULL  
TI Use of lactose-hydrolyzed whey in chewing gum  
IN Bakal, Abraham I., Parsippany, NJ, United States  
Crossman, Tommy L., Corning, NY, United States  
PA Corning Glass Works, Corning, NY, United States (U.S. corporation)  
PI US 4479969 19841030  
AI US 1983-472734 19830307 (6)  
DT Utility  
FS Granted

EXNAM Primary Examiner: Hunter, Jeanette M.  
LREP Voyce, B. D., Maycock, W. E.  
CLMN Number of Claims: 18  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 654  
AB Lactose-hydrolyzed whey or whey fractions are used in chewing gum to replace all or a part of the soluble sweetner, emulsifier and plasticizer components of conventional chewing gum formulations. The use of these materials allows the production of softer chewing gums which are not sticky and of athletic chewing gums which promote salivation. The use of the disclosed whey-based materials results in lower costs for chewing gum products, as well as providing a means to utilize the abundant food value of whey.

L12 ANSWER 6 OF 7 USPATFULL  
AN 81:17853 USPATFULL  
TI Synthesis of ascorbic acid from lactose  
IN Danehy, James P., South Bend, IN, United States  
PA Bernard Wolnak and Associates, Inc., Chicago, IL, United States (U.S. corporation)  
PI US 4259443 19810331  
AI US 1979-47937 19790612 (6)  
RLI Continuation-in-part of Ser. No. US 1979-9251, filed on 5 Feb 1979, now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Kepplinger, Esther M.  
LREP Friedman, Eugene F.  
CLMN Number of Claims: 15  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 450  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB A method of synthesizing vitamin C (ascorbic acid) directly from the hydrolysis products of lactose. Lactose, economically obtained from whey, undergoes hydrolysis with a warm aqueous slurry of lactase to produce **D-galactose** and **D-glucose**. Preparing the methyl glycosides of these two sugars protects a labile C-O linkage during the oxidation of the sugars to D-galacturonic acid and D-glucuronic acid. The mixture of these acids, after the removal of the methyl group through hydrolysis, undergoes reduction with gaseous hydrogen in the presence of an Adams catalyst or Raney nickel to produce a mixture of L-gulonic acid and L-galactonic acid. Removing the water from these acids forces their conversion into the corresponding lactones. Because of the applicable rate constants, adding water to the lactones does not result in their rapid reconversion to the acids. Accordingly, they can then undergo oxidation, in the presence of an enzyme obtained from pea seeds, to L-ascorbic acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 7 OF 7 USPATFULL  
AN 79:25575 USPATFULL  
TI Process for the conversion of lactose into monosaccharides and derivatives thereof

IN Dahlgren, Stig A., Lidingo, Sweden  
PA Carbos AG, Switzerland (non-U.S. corporation)  
PI US 4156076 19790522  
AI US 1976-672314 19760331 (5)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Brown, Johnnie R.  
LREP Hueschen, Gordon W.  
CLMN Number of Claims: 20  
ECL Exemplary Claim: 17  
DRWN No Drawings  
LN.CNT 258

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a process for the conversion of lactose into useful monocarbohydrates, comprising the steps of oxidatively hydrolyzing a lactose solution to form **galactose** and gluconic acid, and separating these two constituents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L24 ANSWER 2 OF 4 USPATFULL  
AN 90:65699 USPATFULL  
TI Single-step catalytic process for the direct conversion of polysaccharides to **polyhydric alcohols**  
IN Jacobs, Pierre, Gooik, Belgium  
Hinnekens, Herve, Gent, Belgium  
PA Fina Research S.A., Belgium (non-U.S. corporation)  
PI US 4950812 19900821  
AI US 1989-313946 19890222 (7)  
PRAI EP 1988-870023 19880222  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Evans, J. E.  
LREP Arnold, White & Durkee  
CLMN Number of Claims: 23  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 550  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB A single-step process for the conversion of polysaccharides to polyhydric alcohols by **hydrogenation** at high pressure and temperature in the presence of a catalyst comprising (i) a supported metal selected from ruthenium, copper, nickel, cobalt and their mixtures, the metal being highly dispersed on the support so as to be capable of adsorbing more than 0.58 molecules of CO per atom of metal, and (ii) a solid having acidic functions, which may or may not be identical to the support, the solid having sufficient acid functions so that the rate constant of hydrolysis of sucrose on the catalyst is greater than 70% of the rate constant of **hydrogenation** of glucose on the catalyst. The process gives substantially pure polyhydric alcohols in a single step.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L24 ANSWER 3 OF 4 USPATFULL  
AN 85:31644 USPATFULL  
TI Process for the continuous preparation of **polyhydric alcohols**  
IN Lepper, Herbert, Koln-Muhlheim, Germany, Federal Republic of Schutt, Hartwig, Dusseldorf-Benrath, Germany, Federal Republic of  
PA Henkel Kommanditgesellschaft auf Aktien, Dusseldorf-Holthausen, Germany, Federal Republic of (non-U.S. corporation)  
PI US 4520211 19850528  
AI US 1984-583145 19840224 (6)  
RLI Continuation of Ser. No. US 1982-386598, filed on 9 Jun 1982, now abandoned  
PRAI DE 1981-3144320 19811107  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Evans, J. E.  
LREP Hammond & Littell, Weissenberger & Dippert  
CLMN Number of Claims: 11  
ECL Exemplary Claim: 1  
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)  
LN.CNT 372  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB This invention is directed to the preparation of polyhydric alcohols.

More specifically, this invention is directed to a continuous process for preparing polyhydric alcohols by the **hydrogenation** of carbohydrates in the presence of ruthenium-containing catalysts at elevated temperatures and elevated pressure, the improvement wherein the catalyst comprises a catalyst solid bed of ruthenium carrier catalyst in lumps.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L24 ANSWER 4 OF 4 USPATFULL  
AN 72:30097 USPATFULL  
TI PREPARATION OF **POLYHYDRIC ALCOHOLS** FROM  
CARBOHYDRATES  
IN Capik, Robert J., Wilmington, DE, United States  
Wright, Leon W., Wilmington, DE, United States  
PA Atlas Chemical Industries, Inc., Wilmington, DE, United States  
PI US 3670035 19720613  
AI US 1970-6011 19700107 (5)  
RLI Division of Ser. No. US 1968-711212, filed on 7 Mar 1968, now patented,  
Pat. No. US 3538019, issued on 3 Nov 1970  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Zitver, Leon; Assistant Examiner: Evans, Joseph E.  
LREP Mulford; Kenneth E., Horton; Roger R.  
CLMN Number of Claims: 7  
DRWN No Drawings  
LN.CNT 532  
AB Metalic nickel and finely divided nickel phosphate supported on an  
inert carrier wherein the total nickel is from 12 to 450.degree. % by weight,  
based on total weight of catalyst, the phosphate (PO<sub>4</sub>) content is  
from 0.60 to 23 percent by weight, based on the total weight of  
catalyst, and the ratio of total nickel to phosphorus is greater than  
2.84.

ANSWER 8 OF 10 USPATFULL

AN 83:38549 USPATFULL

TI **Hydrogenolysis** of polyhydroxylated compounds

IN Arena, Blaise J., Des Plaines, IL, United States

PA UOP Inc., Des Plaines, IL, United States (U.S. corporation)

PI US 4401823 19830830

AI US 1981-260865 19810518 (6)

DT Utility

FS Granted

EXNAM Primary Examiner: Chan, Nicky

LREP Hoatson, Jr., James R., Nelson, Raymond H., Page, II, William H.

CLMN Number of Claims: 12

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 574

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Polyhydroxylated compounds such as glucose, sucrose, **sorbitol**, etc. are subjected to a **hydrogenolysis** reaction at **hydrogenolysis** conditions which include a temperature in the range of from about 175.degree. to about 250.degree. C. and a pressure in the range of from about 10 to about 2000 pounds per square inch in the presence of a catalytic composition of matter. The catalyst comprises a carbonaceous pyropolymer possessing recurring units containing at least carbon and hydrogen atoms which is impregnated with a transition metal. The products which are obtained will include alcohols, acids, ketones, ethers, and hydrocarbons.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 9 OF 10 USPATFULL

AN 76:35116 USPATFULL

TI **Hydrogenation** and **hydrogenolysis** of carbohydrates

with tungsten oxide promoted supported nickel catalyst

IN Wright, Leon W., Wilmington, DE, United States

PA ICI United States Inc., Wilmington, DE, United States (U.S. corporation)

PI US 3965199 19760622

AI US 1974-468763 19740510 (5)

RLI Continuation of Ser. No. US 1972-247689, filed on 26 Apr 1972, now abandoned which is a division of Ser. No. US 1970-9059, filed on 5 Feb 1970, now patented, Pat. No. US 3691100

DT Utility

FS Granted

EXNAM Primary Examiner: Evans, Joseph E.

CLMN Number of Claims: 8

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 592

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a process for the production of polyhydric alcohols from carbohydrates. Also disclosed is a catalyst comprising finely divided metallic nickel and finely divided tungsten oxide supported on an inert carrier wherein the metallic nickel is from 15 to 45% by weight, based on total weight of catalyst, and wherein the tungsten oxide is from 0.5 to 16% by weight, based on the total weight of catalyst.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 10 OF 10 USPATFULL

AN 72:46425 USPATFULL

TI TUNGSTEN OXIDE PROMOTED AND SUPPORTED NICKEL CATALYST  
IN Wright, Leon W., Wilmington, DE, United States  
PA Atlas Chemical Industries, Inc., Wilmington, DE, United States  
PI US 3691100 19720912  
AI US 1970-9059 19700205 (5)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Wyman, Daniel E.; Assistant Examiner: Shine, W. J.  
LREP Mulford; Kenneth E., Horton; Roger R.  
CLMN Number of Claims: 7  
DRWN No Drawings  
LN.CNT 609  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a process for the production of polyhydric alcohols from carbohydrates. Also disclosed is a catalyst comprising finely divided metallic nickel and finely divided tungsten oxide supported on an inert carrier wherein the metallic nickel is from 15 to 45 percent by weight, based on total weight of catalyst, and wherein the tungsten oxide is from 0.5 to 16 percent by weight, based on the total weight of catalyst.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.